DEFENSE ARJ EXECUTIVE EDITOR

Welcome to the *Defense Acquisition Review Journal (ARJ)* theme edition on system-of-systems acquisition. The integration of systems and the interoperability of systems are of paramount importance when we think of the potential issues and problems that arise from miscommunication on the battlefield or in an environment where it is essential that different pieces of equipment are fully interoperable for optimal performance. From an efficiency and effectiveness standpoint, interoperability promotes joint activities and successful military operations; a necessity in our complicated world. Therefore, we have collected a set of articles we hope will provide you some insight into issues and activities aimed at furthering understanding as to what we should or could think about doing when system-of-systems acquisitions govern the situation.

Our featured authors for this edition are Mary Maureen Brown and Rob Flowe. Both Brown and Flowe have spent considerable energy researching system-of-systems and continue to search for new strategies and ways of thinking in this arena. Their article "Joint Capabilities and System-of-Systems Solutions" puts forth the argument that unique cost drivers influence system-of-systems initiatives and that understanding these drivers can enhance joint capabilities. From these unique drivers the authors have created an analytical framework for totally understanding resource requirements in these kinds of situations.

The following two research articles provide a broader Defense conception of system-of-systems issues and activities. In Sandra Switzer and Michael Stropki's, "Effects of Defense Globalization: An Examination of Current and Future Command and Control Collaborations," the authors discuss the issues involved in the macro-environment. They explore multilateral command and control interoperability and how this affects the collaboration of multinational defense industries migrating to a global defense industry market. James Monaco and Tony White's, "Investigating Schedule Slippage," helps provide an understanding of the microenvironment. The authors delve into the cost and performance characteristics that cause schedule slippage in a program and provide a list of variables that estimators can use for future prediction purposes. Starting from the single program concept, they discuss how these variables affect a system-of-systems situation.

The next article provides a set of lessons learned from developing, testing, integrating, and fielding a system-of-systems acquisition. Harold Greene and James Mendoza's, "Lessons Learned from Developing the ABCS 6.4 Solution," describes the process of integrating the Army's Battlefield Automated Systems to improve horizontal information exchange and the lessons learned from integrating and fielding what they term their *6.4 Solution*.

The next two articles are lessons learned covering system-of-systems implementation processes. In Steven Zenishek and David Usechak's, "Net-Centric Warfare and its Impact on System-of-Systems," the authors describe the implementation of the Air Force Distributed Common Ground System Block 10.2 and its implications. John Farr, William Johnson, and Robert Birmingham's, "A Multitiered Approach to Army Acquisition," describes how spiral development is used in the system-of-systems arena and the implications for the budget process.

Hopefully, we have incorporated information of interest to you, as the reader of our system-of-systems theme edition. Perhaps one of our next three editions, "Transformation and Leadership" (August–November 2005 edition), "Systems Engineering Best and Worst Practices" (December 2005–March 2006 edition), and "Technology Transition and Implications" (February 2006 edition) will fall within your area of interest or those of your colleagues. If you are doing research in these areas and would like to submit an article, please contact Ms. Norene Taylor at 703-805-3801. Similarly, if you are interested in being an article reviewer in any of these areas *we would like to hear from you.*

Dr. Beryl A. Harman
Executive Editor
Defense ARJ

A NOTE FROM THE MANAGING EDITOR

Dr. Beryl Harman retired April 30, 2005, after 30 years of federal service, 12 of which were spent teaching at the Defense Systems Management College/Defense Acquisition University (DSMC/DAU). Harman was also the Director of Research for DAU's Curricula Development and Support Center (CDSC), in addition to serving as executive editor for the *Defense ARJ*. She made a positive impact on the journal by instituting theme editions and featuring topics relevant to the Department of Defense Acquisition, Technology, and Logistics community. The *ARJ* staff thanks Dr. Harman for her enthusiasm, support, and commitment to the production of the journal and wishes her well in her future endeavors. Mr. William Erie, Deputy Executive Director, CDSC, will become the interim executive editor of the journal until a permanent replacement for Dr. Harman is selected.